

REMARKS

Applicant respectfully requests a further corrected filing receipt, showing correction of the priority claim in the present Application. On October 30, 2002, under Certificate of Mailing, Applicant filed a "LETTER CORRECTING PRIORITY CLAIM AND REQUESTING CORRECTED FILING RECEIPT" which explained that Applicant had noticed that the priority claim in the present Application, to Serial No. 09/653,983, filed September 1, 2000, contained a typographical error (in that it incorrectly listed 09/653,963 instead of 09/653,983). Applicant requested correction of the priority claim, and confirmed that priority is claimed, under 35 USC 120, from U.S. Patent Application Serial No. 09/653,983, filed September 1, 2000. Applicant had also noticed that the Filing Receipt from the USPTO in the subject Application had errors in the listing of Domestic Priority data. The necessary corrections were shown in red on an attached marked-up copy of the Filing Receipt. [A copy of the marked-up copy of the filing receipt is attached as Exhibit 1.] A corrected Filing Receipt was requested, showing all corrections. In response, the PTO issued a Corrected Filing Receipt [a copy of which is attached as Exhibit 2], which implemented some of the necessary corrections, but did not correct the priority claim typographical error (Serial No. 09/653,963) to its proper number (Serial No. 09/653,983). Accordingly, a further Corrected Filing Receipt is respectfully requested.

A letter proposing drawing corrections is also submitted herewith, to implement addition of reference numerals needed for proper description of Figure 1. As soon as the corrections are approved, new formal drawings will be filed, as required.

The Specification has been amended to implement editorial correction, and the title has been amended.

Claim 1 has been cancelled and new claims 2-16 have been added to better define the invention. Applicant will later consider a continuation application to prosecute other disclosed features.

The new claims clearly distinguish over the prior art.

Claim 2 recites a method for producing electronic video signals representative of color images of a scene, including the following steps: providing a luminance sensor and a color sensor having a color filter thereover, the color filter having a two color red-green checkerboard filter pattern; providing a beamsplitter, and providing a lens system that focuses light from the image, via the beamsplitter, onto the luminance sensor and the color sensor; and producing electronic video signals from outputs of the luminance sensor and the color sensor. Dependent claim 3 and 4 recite diagonal binning of the signals from the color sensor including diagonal binning to obtain a red color signal and a green color signal, and dependent claim 5 recites that the diagonal binning includes clocking out of the color sensor using alternating horizontal and vertical shifts. Dependent claims 7 and 8 recite that the step of producing video signals from the outputs of the luminance sensor and the color sensor includes deriving a blue color signal from the output of the luminance sensor and the red and blue color signals, and dependent claims 9 and 10 recite that the step of producing video signals further includes decimating and interpolating the red and green color signals to obtain low resolution red and green color signals, filtering the luminance signals to obtain a low

resolution white signal, and deriving a low resolution blue color signal from the low resolution white signal and the low resolution red and green color signals. Dependent claims 11 and 12 recite that the step of producing video signals further includes deriving high resolution red, green, and blue color signals from the low resolution red, blue, and green signals and the luminance signal, and claims 13 and 14 recite that the step of providing a lens system comprises providing a motion picture film camera type of lens system. Independent claim 15 is an apparatus version of method claim 2.

As described in Applicant's Specification, an advantage of using a checkerboard filter pattern that passes red and green is that blue will then be the derived color. The derived color will have the lowest signal-to-noise ratio, and this can be best tolerated in the blue (see, for example, page 9 of the Specification).

The Muramoto U.S. Patent 5,523,875, applied in the Office Action, discloses an image pickup apparatus used in a video camera that employs a CCD sensor. At column 8, lines 25-31, Muramoto states:

“In Figure 9, low frequency components RL, WL, and BL are separated from the R signal (R<sub>i</sub>), W signal (W<sub>i</sub>), and B signal (B<sub>i</sub>) which were input in Figure 9 by low pass filters 211, 212, and 213. Subsequently, the low frequency components RL and BL are subtracted from the low frequency component WL at a predetermined ratio by a subtracter 217, thereby obtaining a G signal.”

As seen, the derived color in Muramoto is green (G), so that lowest signal-to-noise ratio will be in the green, in which it is less well tolerated than in the blue.

It will also be recognized that features of Applicant's dependent claims, for example relating to the diagonal binning, derivation of the blue color signal, and other recited features, are not disclosed or suggested by Muramoto.

The cited secondary references, Isoda et al. U.S. Patent 6,605,829, Imoto U.S. Patent 5,014,123, Silver U.S. Patent 6,078,681, and Nohda U.S. Patent 6,295,087 have been studied, but do not add to the teachings missing from the primary citation with respect to the claims, as amended

In view of the foregoing, it is believed that the Application is now in condition for allowance, and such favorable action is earnestly solicited. In the event that the Examiner is not persuaded, it is asked that he kindly telephone the undersigned Counsel collect so that any remaining issues can be resolved.

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February 4, 2005

(Q-5)

Respectfully submitted,



Martin Novack  
Attorney for Applicant(s)



# COPY Corrections Shown In Red EXHIBIT 1

UNITED STATES PATENT AND TRADEMARK OFFICE

COMMISSIONER FOR PATENTS  
UNITED STATES PATENT AND TRADEMARK OFFICE  
WASHINGTON, D.C. 20231  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NUMBER	FILING DATE	GRP ART UNIT	FIL FEE REC'D	ATTY.DOCKET.NO	DRAWINGS	TOT CLAIMS	IND CLAIMS
09/954,969	09/17/2001	1745	435	FAU-7039/40	4	1	1

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CONFIRMATION NO. 8770  
UPDATED FILING RECEIPT  
  
 \*OC00000007947489\*

Date Mailed: 04/24/2002

Receipt is acknowledged of this nonprovisional Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Filing Receipt Corrections, facsimile number 703-746-9195. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

#### Applicant(s)

William E. Glenn, Lauderdale, CA;  
John W. Marcinka, Lighthouse Point, FL;

#### Domestic Priority data as claimed by applicant

THIS APPLICATION IS A CIP OF 09/653,943 09/01/2000  
 WHICH CLAIMS BENEFIT OF 60/151,965 09/01/1999  
AND CLAIMS BENEFIT OF 60/171,361 12/22/1999  
AND CLAIMS BENEFIT OF 60/232,945 09/15/2000  
AND CLAIMS BENEFIT OF 60/232,947 09/15/2000  
 THIS APPLICATION 09/954,969  
 CLAIMS BENEFIT OF 60/314,209 08/22/2001

#### Foreign Applications

If Required, Foreign Filing License Granted 10/20/2001

Projected Publication Date: 08/01/2002

Non-Publication Request: No

Early Publication Request: No

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EXHIBIT 2

Commissioner for Patents  
Washington, DC 20231  
www.uspto.gov

APPLICATION NUMBER	FILING DATE	GRP ART UNIT	FIL FEE REC'D	ATTY.DOCKET.NO	DRAWINGS	TOT CLAIMS	IND CLAIMS
09/954,969	09/17/2001	2612	435	FAU-7039/40	4	1	1

**CONFIRMATION NO. 8770**

Martin Novack Esq.  
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**CORRECTED FILING RECEIPT**



\*OC000000009094658\*

Date Mailed: 11/13/2002

Receipt is acknowledged of this regular Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Filing Receipt Corrections, facsimile number 703-746-9195. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

#### Applicant(s)

William E. Glenn, Lauderdale, CA;  
John W. Marcinka, Lighthouse Point, FL;

#### Domestic Priority data as claimed by applicant

This application is a CIP of 09/653,963 09/01/2000  
which claims benefit of 60/151,965 09/01/1999  
and claims benefit of 60/171,361 12/22/1999  
This application 09/954,969  
claims benefit of 60/314,209 08/22/2001  
and claims benefit of 60/232,945 09/15/2000  
and claims benefit of 60/232,947 09/15/2000

#### Foreign Applications

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Projected Publication Date: Not Applicable

Non-Publication Request: No

ARG 11/13/2002

Early Publication Request: No

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